# (19)日本国特許庁 (JP)

# (12) 公開特許公報(A)

## (11)特許出願公開番号

# 特開平10-197803

(43)公開日 平成10年(1998) 7月31日

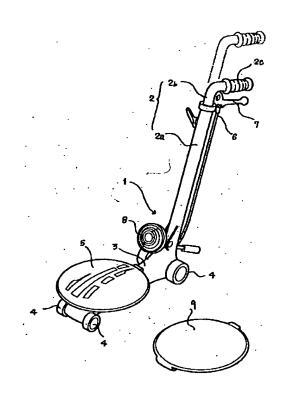
					<del></del>		
(51) Int.Cl. <sup>6</sup>		識別記号	FI.				
G02B 2	3/00		G 0 2 B 23/00				
A47G	1/00 1/02		A 4 7 G 1/00 1/02		D		
					M		
F 0 2 B	7/00		F02B 7	F 0 2 B 77/00 Z			
			審査請求	未請求	請求項の数3	FD	(全 3 頁)
(21)出願番号		<b>特顧平8-358817</b>	(71)出廣人	597010721			
				関口 清	<b>静</b> 美		
(22)出顧日		平成8年(1996)12月27日		栃木県栃木市小野口町296			
			(72)発明者	(72)発明者 関口 清美			
				栃木県植	6木市小野口町2	96	
			(74)代理人	弁理士	福田 尚夫		
			'				

## (54) 【発明の名称】 車両点検ミラー装車

# (57)【要約】

【課題】 手や作業服を汚さずに、作業員が車体の外傍に立ったままあるいは屈み姿勢で、エンジンオイルパン、シリンダーブロック等のガスケットからのオイル洩れ点検や電装品の各種センサー類の配線点検など足回りの点検を行える、簡便な車両点検ミラー装車を提供する。

【解決手段】 車輪4に支持される車台3の後端基部より上方へ車台3に対し鈍角αをなす高さ可調節の手押し操縦杆2を設け、前記車台3上には広角反射鏡5を水平状態に且つ前記手押し操縦杆2の手元附近に操作レバー7を備えた可動索6により角度可調節に載架し、また前記操縦杆2の下方部位に照明灯8を角度可調節に備えて成る車両点検ミラー装車1である。



1

#### 【特許請求の範囲】

【請求項1】 車輪(4)に支持される車台(3)の後端基部より上方へ車台(3)に対し鈍角(α)をなす手押し操縦杆(2)を設け、前記車台(3)上には広角反射鏡(5)を水平状態に且つ角度可調節に載架し、また前記操縦杆(2)の下方部位に照明灯(8)を角度可調節に備えて成る車両点検ミラー装車(1)。

【請求項2】 手押し操縦杆(2)が高さ可調節である 請求項1記載の車両点検ミラー装車(1)。

【請求項3】 広角反射鏡(5)が手押し操縦杆(2)の手元附近に操作レバー(7)を備えた可動索(6)により角度可調節に載架してある請求項1又は2記載の車両点検ミラー装車(1)。

#### 【発明の詳細な説明】

#### [0001]

【発明の属する技術分野】本発明は、手押動作により簡便に車体下に潜らせて、作業員が車体の外傍に立ったままあるいは屈み姿勢で、エンジンオイルパン、シリンダーブロック等のガスケットからのオイル洩れ点検や電装品の各種センサー類の配線点検などを行える、車両点検20ミラー装車に関する。

#### [0002]

【従来の技術並びに事情】車両の仕業点検は、足回りであっても大変厄介な作業に属する。即ち足回りの点検では普通車体をジャッキアップさせることはしないから、作業員は仰向け姿勢で上半身を車体下にずり込ませ、手や作業服を汚しながらオイル洩れ点検やセンサー類の配線点検などを行わなければならない。

#### [0003]

【発明が解決しようとする課題】本発明は、従来のかか 30 る実情に鑑みてなされたもので、手や作業服を汚さずに、作業員が車体の外傍に立ったままあるいは屈み姿勢で、上記各足回りの点検を行える、簡便な車両点検ミラー装車を提供しようとするものである。

#### [0004]

【課題を解決するための手段】上記目的を達成するため、本発明は、車輪4に支持される車台3の後端基部より上方へ車台3に対し鈍角αをなす手押し操縦杆2を設ける。そして前記車台3上には広角反射鏡5を水平状態に且つ角度可調節に載架する。 そしてさらに前記操縦 40杆2の下方部位に照明灯8を角度可調節に備えて成る車両点検ミラー装車1である。

【0005】また上記構成において、手押し操縦杆2が 高さ可調節である車両点検ミラー装車1である。

【0006】さらにまた上記各構成において、広角反射 鏡5が手押し操縦杆2の手元附近に操作レバー7を備え た可動索6により角度可調節に載架してある車両点検ミ ラー装車1である。

#### [0007]

【発明の実施の態様】図1において3が合成樹脂製の車輪4に支持される車台で、その後端基部より上方へ車台3に対し鈍角αをなす鞘状の外筒2aとその外筒2a内に出入・固定可能な取手2cを有する伸縮杆2bとから成る手押し操縦杆2を一体的に設ける。そして前記車台3上には、別に蓋9を用意した広角反射鏡5を水平状態に且つ前記手押し操縦杆2の手元附近に操作レバー7を備えた可動索6により角度可調節に截架する。そしてさらに前記操縦杆2の下方部位には、照明灯8を角度可調節に備えて成る車両点検ミラー装車1である。

#### [0008]

【発明の作用並びに効果】上記のように構成される本発明の車両点検ミラー装車1を使用するには、図2に示すように、作業員が予め適宜高さ調節をした手押し操縦杆2を押して、車両の要点検部位に近付け、広角反射鏡5を備えた車台3を車体下の点検部直下附近(同図ではオイルパン附近)に潜らせる。そして夜間等暗い場合は照明灯8を点灯させ、そのままの状態即ち車体の外傍に立ち或いは屈み姿勢で広角反射鏡5を斜下に見下す。点検箇所の状況により見ずらい時は、広角反射鏡5の角度を任意に調整するものとする。

【0009】すると広角反射鏡5が略180度範囲の視野をとらえるから、その屈折作用により点検部の状態がつぶさに写し出され、難なく点検作業が完了する。これにより手や作業服を汚すことも一切なく、熟練も不要で女子作業員でも簡単に行える。車台3の車輪4をゴムないし合成樹脂製車輪とすれば、サイレントな作業が可能であり、また広角反射鏡5に蓋9を施すことにより、鏡面の汚れ、損傷防止となる。

#### 【図面の簡単な説明】

#### 【図1】斜視図

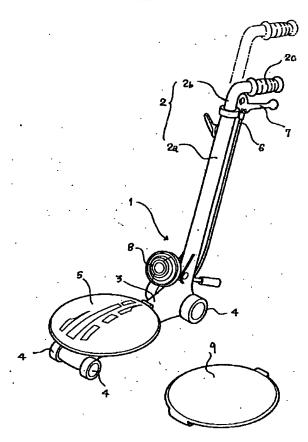
【図2】使用状態を示す側面図

#### 【符号の説明】

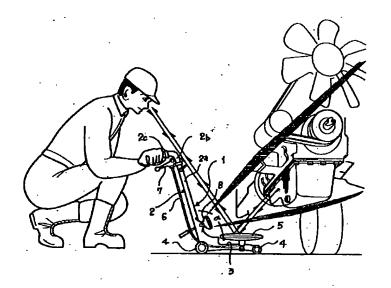
- 1 車両点検ミラー装車
- 2 手押し操縦杆
- 2a 鞘状の外筒
- 2 b 伸縮杆
- 2 c 取手
- 3 車台
- 4 車輪
- 5 広角反射鏡
- 6 可動索
- 7 操作レバー
- 8 照明灯

2

【図1】



【図2】



PAT-NO:

JP410197803A

DOCUMENT-IDENTIFIER: JP 10197803 A

TITLE:

VEHICLE INSPECTION MIRROR MOUNTED CART

PUBN-DATE:

July 31, 1998

INVENTOR-INFORMATION:

NAME

SEKIGUCHI, KIYOMI

ASSIGNEE-INFORMATION:

NAME

COUNTRY

SEKIGUCHI KIYOMI

N/A

APPL-NO:

JP08358817

APPL-DATE: December 27, 1996

INT-CL (IPC): G02B023/00, A47G001/00, A47G001/02, F02B077/00

#### ABSTRACT:

PROBLEM TO BE SOLVED: To provide simple vehicle inspection mirror mounted cart which enables a worker to inspect driving-relative parts about an oil leak in a gasket of an engine oil pan, a cylinder block, etc., wiring of various sensor, etc., of electric accessories, etc., in a standing or bowing posture without dirtying the hands or overalls.

SOLUTION: This vehicle inspection mirror mounted card 1 is provided with a hand manipulating lever 2 of a height adjusting articulation having an obtuse angle α to a cart base 3 above the rear end base part of the cart base 3 supported on wheels 4 and a wide-angle reflecting mirror 5 above the cart base 3 horizontally nearly the hand manipulating lever 2 with a movable cord 6 equipped with an operation lever 7 in an angle adjustable state, and further equipped with an illumination lamp 8 in an angle adjustable state below the manipulating lever 2.

COPYRIGHT: (C)1998,JPO

# PATENT ABSTRACTS OF JAPAN

(11)Publication number:

10-197803

(43) Date of publication of application: 31.07.1998

(51)Int.CI.

G02B 23/00 A47G 1/00 A47G 1/02 F02B 77/00

(21)Application number: **08-358817** 

(71)Applicant:

SEKIGUCHI KIYOMI

(22)Date of filing:

27.12.1996

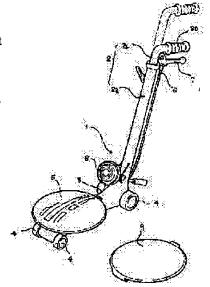
(72)Inventor:

SEKIGUCHI KIYOMI

## (54) VEHICLE INSPECTION MIRROR MOUNTED CART

#### (57) Abstract:

PROBLEM TO BE SOLVED: To provide simple vehicle inspection mirror mounted cart which enables a worker to inspect driving-relative parts about an oil leak in a gasket of an engine oil pan, a cylinder block, etc., wiring of various sensor, etc., of electric accessories, etc., in a standing or bowing posture without dirtying the hands or overalls. SOLUTION: This vehicle inspection mirror mounted card 1 is provided with a hand manipulating lever 2 of a height adjusting articulation having an obtuse angle α to a cart base 3 above the rear end base part of the cart base 3 supported on wheels 4 and a wide-angle reflecting mirror 5 above the cart base 3 horizontally nearly the hand manipulating lever 2 with a movable cord 6 equipped with an operation lever 7 in an angle adjustable state, and further equipped with an illumination lamp 8 in an angle adjustable state below the manipulating lever 2.



# LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

#### \* NOTICES \*

# Japan Patent Office is not responsible for any damages caused by the use of this translation.

- 1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.\*\*\*\* shows the word which can not be translated.
- 3. In the drawings, any words are not translated.

#### DETAILED DESCRIPTION

# [Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention is dived into the bottom of the body simple by \*\*\*\*\*\*\*, while the worker had stood on the side outside the body, it stoops down, is a posture and relates to vehicles check mirror \*\*\*\* which can perform the oil leak check from gaskets, such as an engine oil pan mechanism and a cylinder block, wiring check of the various sensors of electronic autoparts, etc.

[0002]

[A Prior art and a situation] Even if doing check of vehicles is axle part, it belongs to very troublesome work. That is, in check of axle part, since it does not carry out usually carrying out the jack rise of the body, a worker has to perform oil leak check, wiring check of sensors, etc., soiling shearing \*\*\*\*\*\*, a hand, and a fatigue dress for the upper half of the body under the body with a supine posture.

[0003]

[Problem(s) to be Solved by the Invention] this invention was not made in view of the actual condition which the former requires, without soiling a hand and a fatigue dress, while the worker had stood on the side outside the body, it stoops down, is a posture and tends to offer simple vehicles check mirror \*\*\*\* which can check each above-mentioned axle part.

[0004]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, this invention forms the hand-pushed control stick 2 which makes an obtuse angle alpha from the back end base of the under carriage 3 supported by the wheel 4 to a under carriage 3 upwards. and the above -- a under-carriage 3 top -- the wide angle reflecting mirror 5 -- a level state -- and it constructs over angle good regulation And it is vehicles check mirror \*\*\*\* 1 which grows a floodlight 8 into the lower part part of the aforementioned control stick 2 in preparation for angle good regulation further.

[0005] Moreover, in the above-mentioned composition, it is vehicles check mirror \*\*\*\* 1 whose hand-pushed control stick 2 is height good regulation.

[0006] It is vehicles check mirror \*\*\*\* 1 constructed over angle good regulation in each above-mentioned composition further again by the movable funiculus 6 to which the wide angle reflecting mirror 5 equipped the hand neighborhood of the hand-pushed control stick 2 with the control lever 7.

[0007]

[The mode of implementation of invention] The hand-pushed control stick 2 which consists of flexible lever 2b which has handle 2c in which in-and-out and fixation in outer case 2a and outer case 2a of the vaginate which makes an obtuse angle alpha to a under carriage 3 upwards are more possible than the back end base with the under carriage with which 3 is supported in drawing 1 by the wheel 4 made of synthetic resin is formed in one. and the above -- the wide angle reflecting mirror 5 which prepared the lid 9 independently on the under carriage 3 -- a level state -- and it constructs over angle good regulation by the movable funiculus 6 which equipped the hand neighborhood of the aforementioned hand-pushed control stick 2 with the control lever 7 And it is vehicles check mirror \*\*\*\* 1 which grows a floodlight 8 into the lower part part of the aforementioned control stick 2 in preparation for angle good regulation further.

[0008]

[Function and Effect of the Invention] In order to use vehicles check mirror \*\*\*\* 1 of this invention constituted as mentioned above, as shown in drawing 2, a worker pushes the hand-pushed control stick 2 which carried out height control suitably beforehand, brings close to the important point check part of vehicles, and dives the under carriage 3 equipped with the wide angle reflecting mirror 5 into the check section directly under neighborhood under the body (this drawing oil-pan-mechanism neighborhood). And when [, such as night, ] dark, a floodlight 8 is made to turn on, and it stands on a side outside a state as it is, i.e., the body, or stoops down, and the wide angle reflecting mirror 5 is looked down on under slant with a posture. It shall not see according to the situation of a check place, but the angle of the wide angle reflecting mirror 5 shall be arbitrarily adjusted at the time of \*\*\*\*.

[0009] Then, since the wide angle reflecting mirror 5 catches the visual field of the 180 abbreviation range, the state of the check section copies out in detail by the refraction operation, and check work is completed without difficulty. All, skill of this soiling a hand and a fatigue dress is also unnecessary, and a woman worker can also perform it easily. Rubber or the wheel made of synthetic resin, then silence work are possible in the wheel 4 of a under carriage 3, and it becomes the dirt of a mirror plane, and injury prevention by giving a lid 9 to the wide angle reflecting mirror 5.

[Translation done.]